朝比奈泰彦*: **地衣類雑記 (§ 223-225)**

Yasuhiko ASAHINA*: Lichenologische Notizen (§ 223-225)

§ 223. *Cladonia hokkaidensis* Asahina nov. sp.

Thallus primarius evanescens. Podetia tenuia, 0.2–1.0 mm crassa, 3–10 cm longa, ascypha, dichotome ramosa, axillis clausis. Omnes rami arcuate vel flexuoso cruvati, rare rhizinis nigris adventivis ad substratam affixi. Rami in parte superiore stramineo-virides vel stramineo-flavescentes, apicibus acutis, bifurcatis, fuscescentibus, areolato corticati, areolis laevibus, strato chondroideo albo, in parte inferiore fusciduli, areolato corticati, areolis verruculoso parum elatis, strato chondroideo fusco nigricante. Apothecia non visa.

Reactiones: K –, KC + dilute flavescens, P –. Acidum usnicum, acidum barbaticum et pigmentum violaceum (posterior tantum in speciminibus novissimis) continens.

Specim. exam. Tomuraushi, Mt. Daisetsu, Hokkaido. Leg. Togashi, No. 69720. Jul. 20, 1969—holotype preserved in TNS. Mt. Daisetsu. Leg. F. Fujikawa, No. 32013 and 32014 (1932); Shikaribetsu, Tokachi, Hokkaido. Leg. Syoziro Asahina, No. 68925 (1968).

There is no doubt that this species belongs to the Unciales and is distinguished from slender forms of *Cladonia amaurocraea* by the always closed axillae, verruculate areolate cortex and dark colored chondroid layer of the lower half of the podetia. If a small amount of thalline fragments of fresh samples is heated with benzene, the latter dissolves a pigment giving beatiful violet solution. Older specimens fail in giving this color reaction. According to Zopf,[1] an European lichen belonging to Unciales, *Cladonia destricta* Nyl. contains a reddish violet pigment, which on preservation seems to suffer a degeneration. All specimens of *Cladonia destricta* Nyl. preserved in the herbarium, which I could examine, gave no sign of the presence of such coloring matter.

* National Science Museum, Ueno Park, Tokyo. 国立科学博物館.

1) Zopf: Flechtenstoffe (1907), p. 331.

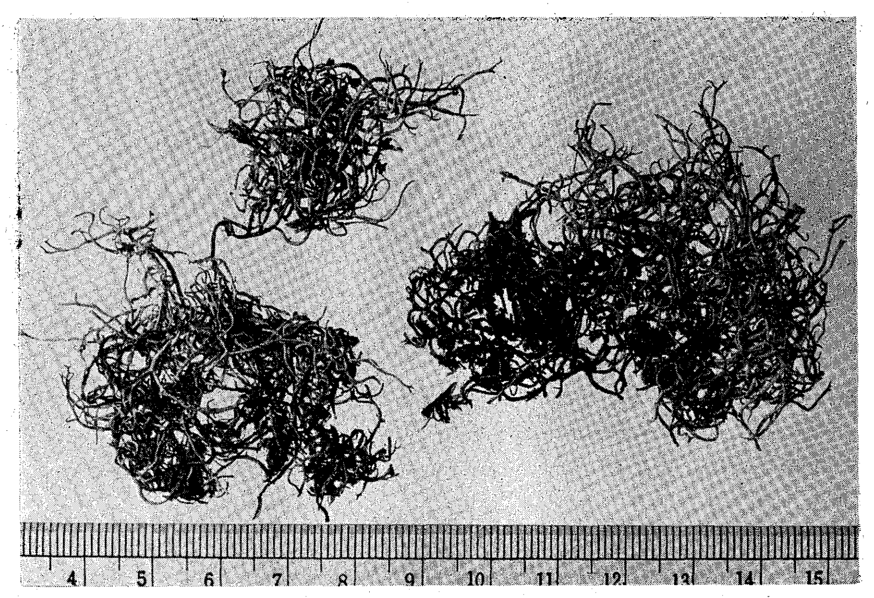


Fig. 1. *Cladonia hokkaidensis* Asahina.

By developing an acetone extract of this new species on a silica gel plate with benzene: ethylacetate: formic acid (5:3:0.3), we obtain a bluish spot (Rf ca 0.51). I should like to express my earnest request to friendly lichenologists, who have chance to get some fresh sample of *Cladonia destricta* Nyl., to repeat the chromatography with it, to determine whether destrictinic acid of Zopf is identical with the pigment of *Cl. hokkaidensis* or not. I am also very grateful, if any one is kind enough to send me fragments of fresh *Cladonia destricta* collected recently, so that I can test the above procedure by myself.

最近富樫君が大雪山彙中の一峯トムラウシの東側約1700米の地点で採集して来た一地衣は一見 *Cladonia amaurocraea* f. *tenuisecta* に似て居り，一部を抽出して見るとウスニン酸とバルバチン酸が出たので，*amaurocraea* の一型と見られそうだが，全体基物に傾臥する姿勢を示し直立型の *amaurocraea* と異り，又分枝の腋は尽く閉鎖し又子柄の下半部の皮部は顆粒状の疣を散布し内髄は黒褐色である。之に反し子柄の上半部は表面藁黄色皮部は点在するが扁平，内髄は白色である点も特異である。又偶然発見したことは，本地衣の少量を抽出管中でベンゼンを加えて熱すると美麗な紫菫色の溶液を生ずる。ベンゼンの代りにピリジン，クロロフォルム等を用いても同様で

あるがエーテルには殆ど着色しない。一方筆者の乾園中を捜索して見たら，本種と同一と見做すべき標本が古くは 1932 年大雪山で藤川福二郎君採集品と近くは 1968 年に十勝の然別温泉附近で朝比奈正二郎の採集品があった。去年然別でとったものでは熱ベンゼンで弱いながらも紫菫色を出したが，1932 年の採集のものからは色々溶媒を代えても色素は出なかった。これで思い出すことは，同じ Unciales 亜節に属する欧州産の *Cladonia destricta* Nyl. には Zopf[1] によると destrictinic acid と称する菫紫色の色素があるが，標本が陳旧のものには此の色素は確認できないと云う事実と或る相関性があるものと考える。筆者は此のトムラウシ産の地衣を新種として茲に発表した次第である。

§ 224. A new species closely related to *Usnea orientalis* Mot.

Motyka gave a very accurate description of *Usnea orientalis* and marked as its distribution areas Central China and Japan. In Japan, it occurs rather rare, but in Formosa it is found abundantly. Among the recent collection of Hale as well as of Togashi brought from Mt. Kinabalu (Sabah), I could segregate a group of *Usnea* closely related to *U. orientalis* Mot. but not identical with it. I have called it *Usnea pseudorientalis*.

Usnea pseudorientalis Asahina nov. sp.

Thallus usque ad 7 cm longus, suberectus, fruticulosus, ad ramos crassiores obscure fuscidulus, opacus, ad apices ramorum tenuiores stramineo-pallidus, parte basali fere cylindrica, non attenuata, mox supra increbre subsympodialiter ramosus, axilis late clausis. Rami vulgo simplices, sursum attenuati, articulatim constricti, teretes, non inflatuli, sat crebre papillati, papillis subglobosis, concoloribus. Ramuli laterales ciliiformes, crebri, breves, vulgo ca 5 mm longi, valde molles, crassiores papillati, tenuiores laeves, apice ramorum crassiorum saepe apotheciis terminati. Cortex ca 50 μ crassus, papyraceus, medulla ca 400 μ crassa, stuppea, non arachnoideo laxa, K + demum rubescens, axis 600 μ crassus, in sectione translucidus, AQ ca 40%. Apothecia crebra, terminalia, plana, ad 10 mm lata, excipulum fuscum, glabrum, rare papillatum, cilia sat crebra, basi constricta, apice acutiuscula, pallida. Discus planus, pallide carneus, interdum albopruinosus, sat distincte marginatus, epithecium obscuratum. Hymenium ca 50 μ latum, hypothecium + excipulum 45 μ latum, asci cylindrici, 8-spori, sporae ellipsoideae, 13×8 μ magnae. Acidum usnicum et salacinicum continens.

Type specimen: Lichens of Sabah. Ascending Mesilau Trail from Mesilau River, elevation ca 1700 m. Kinabalu (N.P. Sabah). Mason E.

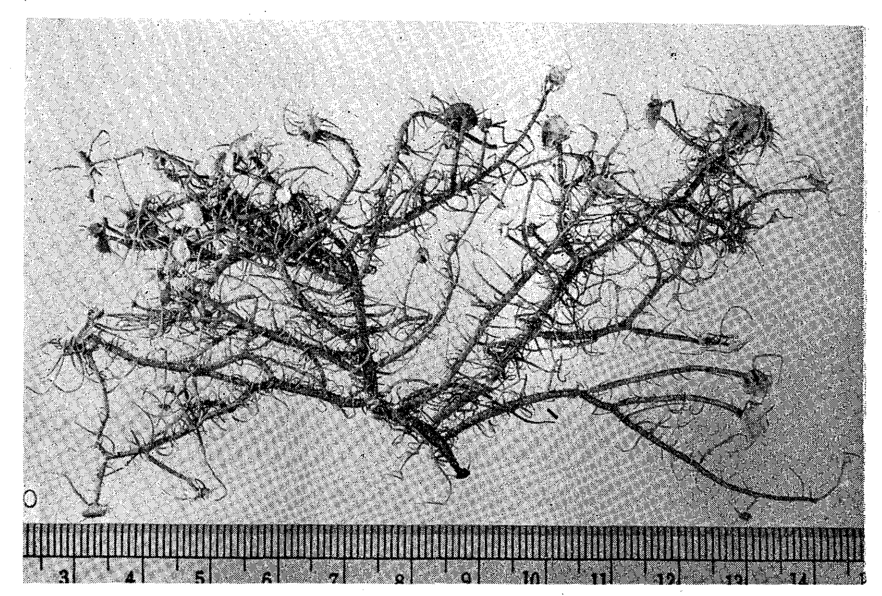


Fig. 2. *Usnea orientalis* Motyka. (Formosa specimen)

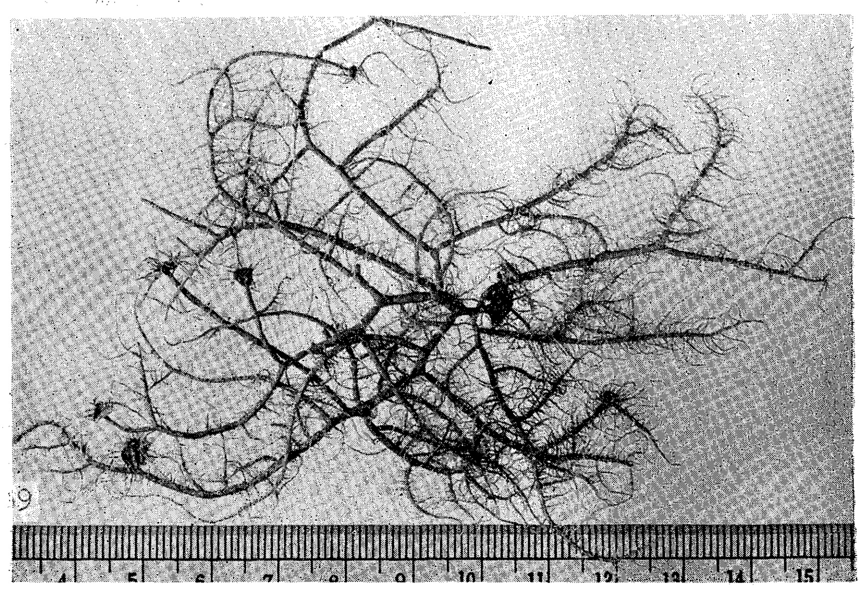


Fig. 3. *Usnea pseudorientalis* Asahina. (Kinabalu specimen)

Distinction between *U. orientalis* and *U. pseudorientalis*

U. orientalis	*U. pseudorientalis*
basal part attenuated	basal part not attenuated
distinctly articulated, articulations inflated and both ends constricted	branches transversally cracked but not articulated
medullary hyphae very lax arachnoid	medullary hyphae stupose, but not arachnoid
AQ[1)] = diam. Axis/diam. thallus ±25%	AQ[1)] = diam. Axis/diam. thallus ±40%

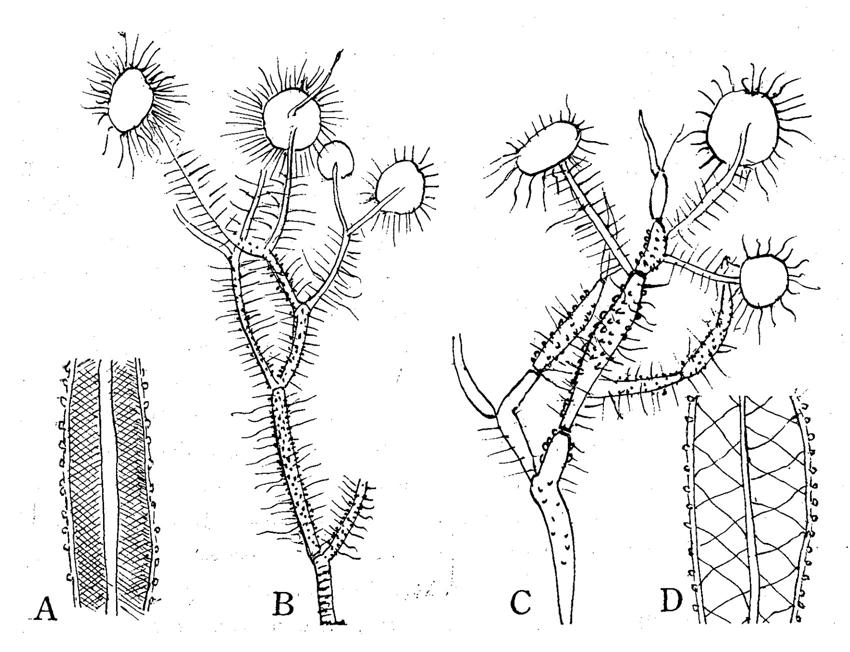


Fig. 4. *Usnea pseudorientalis* Asahina.
A. Longitudinal section of thallus.
B. Habit of a branch.
Usnea orientalis Mot.
C. Habit of a branch.
D. Longitudinal section of thallus.

1) Asahina: Journ. Jap. Bot. **30**: 257, 1955.

Hale, No. 28267. August 1964. Preserved in TNS ad interim.

Following specimens are all of the same origin as the type: Hale, Nos. 28176, 28201, 28284, 28459, 28464, 28506, 28975, 29184. M. Togashi, No. 66974. Liwang River Ridge. Kinabalu, 1600 m. Sept. 20, 1966. Leg. M. Togashi.

Philippines. Mountain Prov., Luzon. Summit of Mt. Data. Mason E. Hale, No. 25973. July/August 1964.

Sikkim. Gangtok. June 13, 1960. The Botanical Expedition to Eastern India 1960.

These latter two specimens are exceedingly elderly ones. The thalli are robustior and attain even 12 cm.

Usnea orientalis Mot. は Handel-Mazzetti が四川省奥地で採集したものがタイプで，筆者も嘗て検定したことがある。日本も産地に掲げられて居るが，我国では寧ろ稀品である。しかし台湾には饒産し 1964 年の黒川博士のコレクション中には多数の標本がある。*Usnea orientalis* Mot. の日本に於ける産地としては富士山麓大宮口 2合目，武蔵両神山，四国剣山位を数えるに過ぎないが，台湾では台北州大平山，中央山脈の阿里山，新高山，ピアナン鞍部（宜蘭），南湖大山，台東州の諸山地を挙げることができる。尚東南アジア地方では爪哇を挙げることができる。勿論四川省に連続するヒマラヤ地方にも産する。所が 1964 年の Hale 氏のキナバル採集品，1966 年の富樫氏のキナバル採集品中には一つも見附からず，これに似て非なる標本多数を撰出した。これを *Usnea pseudorientalis* Asahina と命名し新種として発表した。

§225. *Cladonia macroptera* Räsänen in Journ. Jap. Bot., **16**: 149 (1940)

Podetia 5–15 cm longa, ascypha, 2–3 mm crassa, cornuta, in apicibus subulata, ascypha, eramosa vel parce ramosa, axillis perviis, apice breviter acutis, corticata vel cortice partim areolata, laevigata, albido- vel pallido-straminea, passim pterygosquamosa, squamae 3+–10 mm longae, 2–5 mm latae, stipitatae, profunde laciniis margine crenulato, subtus albidus et nonnumquam sorediosis. Apothecia ignota. Cortex podetii decolor ca 20 μ crassus, medulla 30 μ crassa, stratum chondroideum 150 μ crassum, distincte limitatum; medulla K −, PD + rubescens, acidum fumarprotocetraricum continens.

Sat similis *Cladonia furcata* (Huds.) Schrad. v. *pinnata* (Flk.) Vain. f. *regalis* (Flk.) differt thallo omnino esoredioso et squamis non profunde laciniatis.

Isotype specimen: No. 498. Mt. Yatsugadake, Hondo. Leg. S. Terajima. Jul. 30, 1918 (TI).

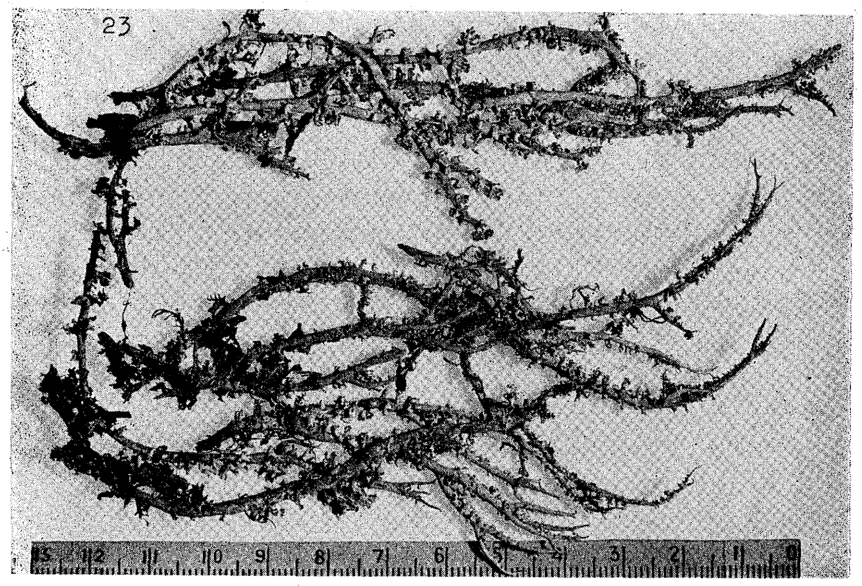


Fig. 5. *Cladonia macroptera* Räsänen.

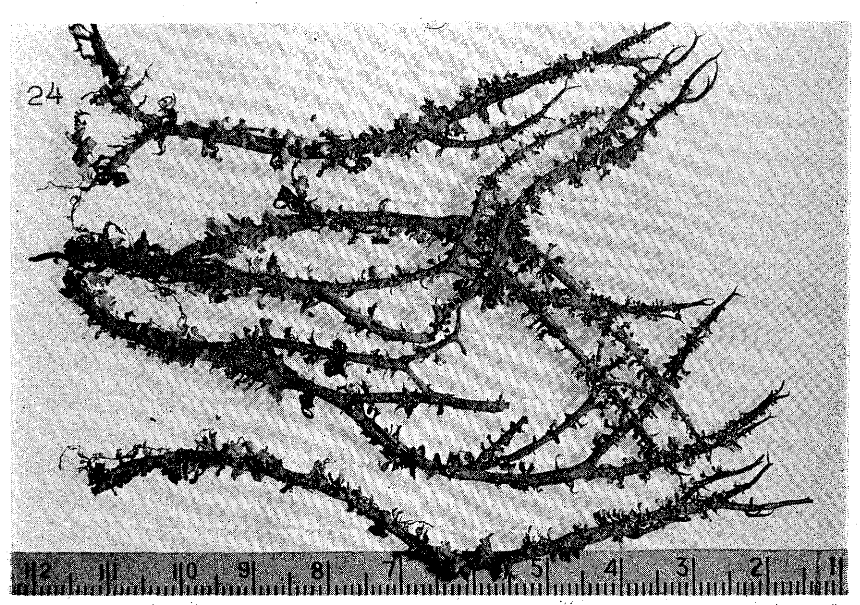


Fig. 6. *Cladonia furcata* (Huds.) Schrad. var. *pinnata* (Flk.) Vain. f. *regalis* Flk.

Specimens preservated in the herbarium of TNS: no. 32104. Mt. Yatsugadake, Hondo. Leg. F. Fujikawa. Oct. 4, 1932; no. 33725. Mt. district of Chichibu. Leg. Y. Asahina. Jul. 24, 1933; no. 33726. Mt. district of Chichibu. Leg. Y. Asahina. Jul. 25, 1933; no. 59860. Azusayama-Kokushi Dake, Hondo. Leg. M. Nuno. Aug. 6, 1959; no. 60821. Middle part of Kimpu. Leg. Y. Asahina, M. Togashi et M. Nuno. Aug. 6, 1959.

Formerly I was of opinion that *Cladonia macroptera* is identical with *Cladonia scabriuscula* (Del.) Leight. f. *elegans* Robb.[1] But afterwards I have met with several pure colonies of *C. macroptera* in various localities of Kō-Shin-Bu (甲信武) districts, so that I am now inclined to treat it as an autonomous species.

Cladonia macroptera Räs. は子柄が 13 cm にも達する大形のもので，筆者は一時之を *Cladonia scabriuscula* (Del.) Leight. f. *elegans* Robb. と同一物であると考えた。然し macroptera の原産地甲，武，信の山岳地帯でその群落を看察すると非常に純粋，単一で異形体の混生を見ないことから，之を独立の種とするのが妥当と思われる。尚 *Cladonia furcata* v. *pinnata* f. *regalis* との区別は英文記事においてある。

○高等植物分布資料 (67) Materials for the distribution of vascular plants in Japan (67)

○セキショウイ *Juncus prominens* Miyabe et Kudo　セキショウイは本邦では，北海道，本州（陸奥）に分布の記録があるが，1965 年 7 月 31 日釜石市箱崎町御箱崎海岸で採集した。

○シラキ *Sapium japonicum* (Sieb. et Zucc.) Pax. et Hoffm.　シラキは岩手県では北上市国見山が北限とされていたが，1968 年 10 月 19 日故岩手大学教授菊地政雄氏は，更に北の和賀郡東和町七ッ鉢で発見している。同氏は本年 3 月急逝されたので，私は本年 6 月 20 日東和町教委の委嘱により，同地を更に追跡調査の結果，30 本程の自生を確認したので，ここに報告する。（岩手県遠野市青笹町 小水内長太郎）

1) 朝比奈泰彦：日本之地衣 第 1 巻, Lich. of Japan, 1, p. 34–135, 1950.